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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/591,017

06/20/2007

Stefano Re Fiorentin

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45263

7590

08/17/2010

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EXAMINER

FISCHER, JUSTIN R

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

08/17/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/591,017	<b>Applicant(s)</b> RE FIORENTIN ET AL.	
	<b>Examiner</b> Justin R. Fischer	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,12,16-20,24,26-31,33-38,40,47 and 49-56 is/are pending in the application.
- 4a) Of the above claim(s) 51 and 52 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,12,16-20,24,26-31,33-38 and 47 is/are allowed.
- 6) ☒ Claim(s) 53-56 is/are rejected.
- 7) ☒ Claim(s) 40,49 and 50 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 40, 49, and 50 are objected to because of the following informalities: they are dependent from cancelled claims. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 55 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim as currently drafted requires beads arranged "between" the belt and the blocks. The exact structure of "beads" is not sufficiently described and the figures fail to depict a structural element "between" the blocks and the belt.

### ***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 53-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson (US 4,170,254) and further in view of Markow (US 4,456,048).

As best depicted in Figure 9, Jackson teaches a tire construction including a tread, a pair of sidewalls, and a pair of beads, wherein said sidewalls comprise resilient annular membranes with a straight generatrix which forms an angle other than 90 degrees with respect to the tire rotational axis. Jackson, however, is silent with respect

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to the inclusion of a tubular reinforcement body comprising an annular belt and a plurality of blocks.

Markow, on the other hand, teaches a tire construction including a tread, a pair of sidewalls, and a pair of beads, wherein a tubular elastomeric body or dual-modulus band 36 is provided beneath said tread and between respective sidewalls in order to enhance tire performance in an underinflated running condition (Column 1, Lines 2-10). In this instance, said tubular elastomeric body comprises an annular belt or band 50 and a plurality of hollow bodies or V-shaped blocks 52, wherein said blocks would be forced against one another as a result of compression on the tire during rotation of the tire. In this instance, adjacent V-shaped blocks 52, which taper toward the tire interior surface, have connecting portions in the area where said blocks contact fiber 64 (integrated structure in an analogous manner to applicant's construction). One of ordinary skill in the art at the time of the invention would have found it obvious to include such a tubular body in the tire of Jackson, in view of Markow, in order to provide the above noted benefits, which would have been desired in nearly all modern day tire constructions. Lastly, it is noted that the claims as currently drafted fail to exclude positioning said hollow bodies in a radial external position with respect to the annular belt.

Regarding claim 54, as noted above, the point where adjacent V-shaped bodies or blocks contact fiber 64 can be viewed as the claimed connecting portions. Furthermore, it is evident from the figures that the V-shaped blocks define an integrated structure over the circumference of the tire.

With respect to claims 55 and 56, it appears that the connecting portions noted above can be viewed as "beads" or "virtual hinges".

***Allowable Subject Matter***

6. Claims 1, 2, 12, 16-20, 24, 26-31, 33-38, and 47 are allowed.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R. Fischer** whose telephone number is **(571) 272-1215**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Justin Fischer

/Justin R Fischer/

Primary Examiner, Art Unit 1791

August 13, 2010